

Amendments to the Claims

This listing of claims replaces prior versions:

Claim 1 (Original): A method for fabricating a capacitor comprising the steps of:

forming a lower electrode of a metal over a substrate;

forming a capacitor dielectric film of an oxide dielectric film on the lower electrode;

depositing a metal film on the capacitor dielectric film;

performing a thermal processing in a hydrogen-content atmosphere after the step of depositing the metal film; and

patterning the metal film to form an upper electrode of the metal film after the step of performing the thermal processing.

Claim 2 (Currently Amended): A method for fabricating a capacitor comprising the steps of:

forming a lower electrode of a metal over a substrate by chemical vapor deposition;

forming a capacitor dielectric film of an oxide dielectric film on the lower electrode; and

forming an upper electrode of a metal on the capacitor dielectric film by chemical vapor deposition,

wherein conditions of the chemical vapor deposition for forming the lower electrode and the upper electrode ~~being~~ are controlled so that an oxygen concentration in the upper electrode is higher than that in the lower electrode.

Claim 3 (Original): A method for fabricating a capacitor according to claim 1, wherein the step of forming the upper electrode comprises the steps of:

depositing a metal film;
subjecting the metal film to a thermal processing in a hydrogen-content atmosphere; and
patterning the metal film to form the upper electrode of the metal film.

Claim 4 (Original): A method for fabricating a semiconductor device comprising the steps of:

forming a lower electrode of a metal over a semiconductor substrate;
forming a capacitor dielectric film of an oxide dielectric film on the lower electrode;
depositing a metal film on the capacitor dielectric film;
performing a thermal processing in a hydrogen-content atmosphere after the step of depositing the metal film; and
patterning the metal film to form an upper electrode of the metal film after the step of performing the thermal processing.

Claim 5 (Currently Amended): A method for fabricating a semiconductor device comprising the steps of:

forming a lower electrode of a metal over a semiconductor substrate;
forming a capacitor dielectric film of an oxide dielectric film on the lower electrode;
forming an upper electrode of a metal on the capacitor dielectric film;
forming an inter-layer insulating film over the upper electrode;
forming a contact hole reaching the upper electrode in the inter-layer insulating film;
forming a contact plug electrically connected to the upper electrode in the contact hole;

performing a thermal processing in a hydrogen-content atmosphere after the step of forming the ~~upper electrode~~ contact plug; and

forming an uppermost passivation film over the ~~upper electrode~~ inter-layer insulating film after the step of performing the thermal processing.

Claim 6 (Original): A method for fabricating a semiconductor device according to claim 5, further comprising the step of:

performing a thermal processing in a nitrogen atmosphere after the step of performing the thermal processing in a hydrogen-content atmosphere.

Claim 7 (Currently Amended): A method for fabricating a semiconductor device according to claim 4, wherein

conditions of chemical vapor deposition for forming the lower electrode and the ~~upper electrodes~~ metal film are controlled so that an oxygen concentration ~~[[of]]~~ in the upper electrode is higher than that ~~[[of]]~~ in the lower electrode.

Claim 8 (Currently Amended): A method for fabricating a semiconductor device according to claim 5, wherein

conditions of chemical vapor deposition for forming the lower electrode and the upper ~~electrodes~~ electrode are controlled so that an oxygen concentration ~~[[of]]~~ in the upper electrode is higher than that ~~[[of]]~~ in the lower electrode.

Claim 9 (Currently Amended): A method for fabricating a semiconductor device according to claim 6, wherein

conditions of chemical vapor deposition for forming the lower electrode and the upper ~~electrodes~~ electrode are controlled so that an oxygen concentration ~~[[of]]~~ in the upper electrode is higher than that ~~[[of]]~~ in the lower electrode.

Claim 10 (New): A method for fabricating a capacitor according to claim 2, wherein

the conditions of the chemical vapor deposition for forming the lower electrode and the upper electrode are controlled so that a carbon concentration in the upper electrode is lower than that in the lower electrode.